

CLAIMS

We Claim:

1. A plug device for use during the manufacture of optoelectronic devices comprising:
 - a handle having a first end and a second end; and
 - a pair of rods wherein one of the rods extends from the first end of the handle and the other rod extends from the second end of the handle, wherein each of the rods is suitably sized to fit into respective barrels that lead to photonic devices such that each rod seals respective openings of the barrels and thereby prevents contaminating particles from entering each barrel.
2. A plug device as recited in claim 1 wherein each of the rods are substantially parallel to each other.
3. A plug device as recited in claim 1 wherein each of the rods are integrally formed with the handle.
4. A plug device as recited in claim 1 further comprising:
 - a rim that extends around each rod, wherein each rim further facilitates the sealing of an opening of a respective barrel.
5. A plug device as recited in claim 4 wherein each rim is formed around each rod at a position near where the handle and a respective rod interface.
6. A plug device as recited in claim 5 wherein each rim has an outer circumference, each rim further comprising:
 - a tube that extends from the outer circumference of each rim such that the tube surrounds at least a portion of each rod.
7. A plug device as recited in claim 4 further comprising:
 - an optoelectronic device having two photonic devices and two hollow barrels wherein each hollow barrel is positioned above a respective photonic device, wherein

each rod of the plug device is inserted into a respective barrel such that each rod seals an opening to each of the barrels and thereby prevents contaminating elements from entering the barrel.

8. A plug device as recited in claim 7 wherein each of the rods are substantially parallel to each other and each of the barrels are also substantially parallel to each other.

9. A plug device as recited in claim 1 wherein the rod and each of the rods are made of a material capable of transmitting optical light signals such that light entering a distal end of one of the rods can be transmitted through the handle and to a distal end of the other rod.

10. A plug device as recited in claim 9 wherein the surface of the handle and each of the rods are covered with a reflective material, whereby the reflective material enhances the optical transmission capabilities of the plug device.

11. A plug device as recited in claim 10 wherein the first and second ends of the handle have an angled surface that facilitates light that travels through the plug device to pass from a rod to the handle, and vice-versa, by reflecting off of the angled surface.

12. A plug device as recited in claim 11 wherein each of the angled surfaces are at approximately a 45-degree angle with respect to the longitudinal axis of the rods.

13. A plug device as recited in claim 11 further comprising:
a mirror attached to each of the angled surfaces to further facilitate the optical transmission of light through the plug device.

14. A plug device as recited in claim 9 wherein the first and second ends of the handle have an angled surface that facilitates light that travels through the plug device to pass from a rod to the handle, and vice-versa, by reflecting off of the angled surface.

15. A plug device as recited in claim 14 wherein each of the angled surfaces are covered with a reflective material, whereby the reflective material enhances the optical transmission capabilities of the plug device.

16. A plug device as recited in claim 9 further comprising:
an optoelectronic device having two photonic devices and two hollow barrels wherein each hollow barrel is positioned above a respective photonic device, wherein each rod of the plug device is inserted into a respective barrel such that light signals emitted from each of the photonic devices can pass through the plug device and then be received by the other photonic device, whereby the plug device facilitates testing of the optoelectronic device.
17. A plug device as recited in claim 16 wherein the optoelectronic device is a transceiver.
18. A plug device as recited in claim 17 wherein the optoelectronic device is a multi-channel transceiver.
19. A plug device as recited in claim 1 wherein the handle has a flat surface suitable for a vacuum device to attach itself to the handle, whereby the vacuum device can then transport the plug device.
20. A plug device as recited in claim 19 wherein the flat surface is located on a surface of the handle that is opposite to the surface from which the rods extend.
21. A plug device as recited in claim 1 further comprising;
a projection that extends from the handle on an opposite side of the handle from which the rods extend, the projection having a flat surface to which a vacuum device can attach itself, whereby the vacuum device can then transport the plug device.
22. A plug device for use during the manufacture of optoelectronic devices comprising:
a handle having a first end and a second end; and
a pair of rods wherein one of the rods extends from the first end of the handle and the other rod extends from the second end of the handle, wherein each of the rods is suitably sized to fit into respective barrels that lead to photonic devices, and wherein each of the rods are made of a material capable of transmitting optical light signals such that

light entering a distal end of one of the rods can be transmitted through the handle and to a distal end of the other rod.

23. A plug device as recited in claim 22 wherein the surface of the handle and each of the rods are covered with a reflective material, whereby the reflective material enhances the optical transmission capabilities of the plug device.

24. A plug device as recited in claim 23 wherein the first and second ends of the handle have an angled surface that facilitates light that travels through the plug device to pass from a rod to the handle, and vice-versa, by reflecting off of the angled surface.

25. A plug device as recited in claim 24 wherein each of the angled surfaces are at approximately a 45 degree angle with respect to the longitudinal axis of the rods.

26. A plug device as recited in claim 24 further comprising:
a mirror attached to each of the angled surfaces to further facilitate the optical transmission of light through the plug device.

27. A plug device as recited in claim 22 further comprising:
an optoelectronic device having two photonic devices and two hollow barrels wherein each hollow barrel is positioned above a respective photonic device, wherein each rod of the plug device is inserted into a respective barrel such that light signals emitted from each of the photonic devices can pass through the plug device and then be received by the other photonic device, whereby the plug device facilitates testing of the optoelectronic device.

28. A plug device as recited in claim 22 wherein each rod is suitably sized to seal respective openings of the barrels and thereby prevent contaminating particles from entering each barrel.

29. A plug device as recited in claim 28 further comprising:
a rim that extends around each rod, wherein each rim further facilitates the sealing of an opening of a respective barrel.

30. A plug device as recited in claim 29 wherein each rim is formed around each rod at a position near the handle.

31. A plug device as recited in claim 22 wherein the handle has a flat surface suitable for a vacuum device to attach itself to the handle, whereby the vacuum device can then transport the plug device.

32. A plug device as recited in claim 31 wherein the flat surface is located on a surface of the handle that is opposite to the surface from which the rods extend.

33. A plug device as recited in claim 22 further comprising;
a projection that extends from the handle on an opposite side of the handle from which the rods extend, the projection having a flat surface to which a vacuum device can attach itself, whereby the vacuum device can then transport the plug device.